

WHAT IS CLAIMED IS:

1. A fluid spraying nozzle comprising:
an outer conduit; and
an inner conduit positioned within at least a portion of the outer conduit such that a gap is formed between the outer conduit and the inner conduit;
wherein a back portion of the outer conduit is coupled to a pressurized gas supply source,
wherein a back portion of the inner conduit is coupled with a fluid supply source, the fluid supply source being configured to supply a fluid, the fluid comprising a liquid, a solid, or a mixture of a liquid and a solid, and wherein a front portion of the inner conduit is configured to allow ejection of the fluid during use,
wherein the inner conduit and the outer conduit are composed of a flexible material, and wherein the front portion of the inner conduit and the front portion of the outer conduit move when gas is ejected from the outer conduit, and wherein the fluid is pulled from the fluid supply source through the inner conduit when gas is ejected from the outer conduit such that the fluid is mixed with the ejected gas.
2. The fluid spraying nozzle of claim 1, further comprising a balancing member coupled to the outer conduit, wherein the balancing member is configured to control movement of the front portion of the outer conduit and the front portion of the inner conduit during use.
3. The fluid spraying nozzle of claim 1, further comprising a regulating member positioned proximate to the outer conduit, wherein the regulating member is configured to limit movement of the front portion of the outer conduit and the front portion of the inner conduit during use.
4. The fluid spraying nozzle of claim 1, wherein the outer conduit and the inner conduit

10084629-022702

are composed of a flexible synthetic resin.

5. The fluid spraying nozzle of claim 1, wherein the gas is compressed air, and wherein the pressurized gas supply source comprises a compressor.

6. The fluid spraying nozzle of claim 1, wherein fluid supply source is configured to supply a cleaning liquid.

7. The fluid spraying nozzle of claim 1, wherein fluid supply source is configured to supply abrasive particles.

8. The fluid spraying nozzle of claim 1, wherein fluid supply source is configured to supply a mixture of a liquid and abrasive particles.

9. The fluid spraying nozzle of claim 1, further comprising a plurality of balancing members coupled to the outer conduit.

10. The fluid spraying nozzle of claim 1, further comprising a regulating member positioned proximate to the outer conduit, wherein the regulating member is configured to limit movement of the front portion of the outer conduit and the front portion of the inner conduit during use, wherein the regulating member is in a substantially conical shape and substantially surrounds the front portion of the outer conduit and the front portion of the inner conduit.

11. The fluid spraying nozzle of claim 1, further comprising a regulating member positioned proximate to the outer conduit, wherein the regulating member is configured to limit movement of the front portion of the outer conduit and the front portion of the inner conduit during use, wherein the regulating member is in a substantially conical shape and

10084629-022702

substantially surrounds the front portion of the outer conduit and the front portion of the inner conduit, and wherein the regulating member comprises an annular whisk coupled to an opening end of the regulating member.

12. The fluid spraying nozzle of claim 1, further comprising a regulating member positioned proximate to the outer conduit, wherein the regulating member is configured to limit movement of the front portion of the outer conduit and the front portion of the inner conduit during use, wherein the regulating member is an annular member that surrounds a portion of the outer conduit.

13. A fluid spraying apparatus comprising:

a body;

a nozzle disposed in the body, the nozzle comprising an outer conduit and an inner conduit positioned within at least a portion of the outer conduit such that a gap is formed between the outer conduit and the inner conduit;

a pressurized gas supply source coupled to the outer conduit; and

a fluid supply source coupled to the inner conduit, the fluid supply source being configured to supply a fluid, the fluid comprising a liquid, a solid, or a mixture of a liquid and a solid;

wherein a back portion of the outer conduit is coupled to the pressurized gas supply source,

wherein a back portion of the inner conduit is coupled to the fluid supply source, and wherein a front portion of the inner conduit is configured to allow ejection of the fluid during use,

wherein the inner conduit and the outer conduit are composed of a flexible material, and wherein the front portion of the inner conduit and the front portion of the outer conduit move within the body when gas from the pressurized gas supply source is ejected from the outer conduit, and wherein the fluid is pulled from the fluid supply source through the inner

conduit when gas is ejected from the outer conduit such that the fluid is mixed with the ejected gas.

14. The fluid spraying apparatus of claim 13, further comprising a balancing member coupled to the outer conduit, wherein the balancing member is configured to control movement of the front portion of the outer conduit and the front portion of the inner conduit during use.

15. The fluid spraying apparatus of claim 13, further comprising a regulating member coupled to the outer conduit, wherein the regulating member is configured to limit movement of the front portion of the outer conduit and the front portion of the inner conduit during use.

16. The fluid spraying apparatus of claim 13, wherein the pressurized gas source comprises a compressed air source.

17. The fluid spraying apparatus of claim 13, further comprising a valve coupled to the fluid supply source and the inner conduit, wherein the valve is configured to control movement of the fluid from the fluid supply source to the inner conduit.

18. The fluid spraying apparatus of claim 13, wherein the pressurized gas supply comprises an aerosol gas.

19. The fluid spraying apparatus of claim 13, wherein the fluid comprises a cleaning liquid.

20. The fluid spraying apparatus of claim 13, wherein the fluid supply source is removably coupled to the body.

21. A fluid spraying apparatus comprising:

a body;

a nozzle disposed in the body, the nozzle comprising an outer conduit and an inner conduit positioned within at least a portion of the outer conduit such that a gas flow path is formed between the outer conduit and the inner conduit;

a pressurized gas supply source coupled to the outer conduit; and

a fluid supply source coupled to the inner conduit, the fluid supply source being configured to supply a fluid, the fluid comprising a liquid, a solid, or a mixture of a liquid and a solid;

wherein a back portion of the outer conduit is coupled to the pressurized gas supply source,

wherein a back portion of the inner conduit is coupled to the fluid supply source,

wherein the front portion of the inner conduit is positioned in a negative pressure area that is formed in the outer conduit when gas is ejected from the second conduit during use, and

and wherein the front portion of the inner conduit and the front portion of the outer conduit move within the body when gas from the pressurized gas supply source is ejected from the outer conduit, and wherein the fluid is pulled from the fluid supply source through the inner conduit when gas is ejected from the outer conduit such that the fluid is mixed with the ejected gas.

22. A method of applying a fluid to a surface comprising:

providing a fluid spraying apparatus, the fluid spraying apparatus comprising:

a body;

a nozzle disposed in the body, the nozzle comprising an outer conduit and an inner conduit positioned within at least a portion of the outer conduit such that a gas flow path is formed between the outer conduit and the inner conduit;

a pressurized gas supply source coupled to the outer conduit; and

a fluid supply source coupled to the inner conduit, the fluid supply source being configured to supply a fluid, the fluid comprising a liquid, a solid, or a mixture of a liquid and a solid; and

passing gas through the outer conduit, wherein passage of gas through the outer conduit pulls fluid from the fluid supply source through and out of the inner conduit; and wherein the front portion of the inner conduit and the front portion of the outer conduit move within the body when gas from the pressurized gas supply source passes through the outer conduit.

23. The method of claim 22, wherein the surface comprises a vehicle surface.

24. A fluid spraying apparatus comprising:

a body;

a nozzle disposed in the body, the nozzle comprising an outer conduit and an inner conduit positioned within at least a portion of the outer conduit such that a gap is formed between the outer conduit and the inner conduit;

a pressurized gas supply source coupled to the outer conduit; and

a fluid supply source coupled to the inner conduit, the fluid supply source being configured to supply a fluid, the fluid comprising a liquid, a solid, or a mixture of a liquid and a solid;

wherein a front portion of the inner conduit and a front portion of the outer conduit move within the body when gas from the pressurized gas supply source is ejected from the outer conduit, and wherein the fluid is pulled from the fluid supply source through the inner conduit when gas is ejected from the outer conduit such that the fluid is mixed with the ejected gas.

25. A fluid supply source configured to contain a fluid, or a fluid and a solid, and wherein the source is configured to be attached to an apparatus comprising a gas supply source, a nozzle, and a conduit, wherein the conduit is coupled to allow fluid, or fluid and solid, from the fluid supply source to flow such that when gas from the gas supply source is ejected from the apparatus, fluid is pulled from the fluid supply source through the conduit such that the fluid is mixed with the ejected gas.

26. The fluid supply source of claim 25, wherein the fluid supply source is configured to be removed from the apparatus, refilled, and then reattached to the apparatus.

20220529 022702